



**Service Priorities and Programmes**  
**Electronic Presentations**

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**Inhaler Technique Enhancement for patients in a Primary Care Setting**

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**Introduction**

Inhaled medications are the cornerstone of pharmacological treatment for asthma, chronic obstructive pulmonary disease (COPD) and other chronic lung disease. Since they are effective only when they are administered properly, a correct inhalation technique is crucial for delivery of medications to the lung, and is potentially life-saving particularly during asthma or COPD exacerbation. However, the Society of Hospital Pharmacists of Hong Kong recently reported that more than 70% citizens used inhalers incorrectly. Therefore, it is important to ensure that our asthma or COPD patients cared in a primary care setting have received education on inhalation techniques and the quality of such patient empowerment provided by our primary health care nurses is standardized.

**Objectives**

To standardize the patient education and staff training in the use of pressurized Meter Dose Inhaler (pMDI). To evaluate the outcome of this standardized education program

**Methodology**

This project had 2 stages which took place in the 6 General Outpatient Clinics in the New Territories West Cluster (NTWC). Stage 1 (from 15/06/2016 to 31/07/2016), included patient education material preparation and nursing staff training. All nurses in the NTWC GOPCs were given standardized staff education program on pMDI use. Stage 2 was started shortly after completion of Stage 1, and involved patient empowerment of inhalation technique with outcome evaluation. Patients recruited were those referred to nurses for puff technique education.

**Result**

In our project, there were total 56 nurses and 73 patients recruited. We assessed and educated both the nurses' and patients' technique in using of pMDI and pMDI with spacers. Before the program, there were only 35.7% and 26.8% of the nurses using respectively pMDI and pMDI with spacer correctly. After the program, almost all of them (96.4% and 94.6%) could manage the correct technique. There were only 3.5% of the patients could using the pMDI correctly and no patients could use the MDI with spacers correctly before education program. After the education program, there were 87.7% and 100% of them could use respectively pMDI and pMDI with spacers correctly. Conclusion This project has demonstrated that the standardized educational program on inhalation technique was effective to bring a significant improvement in proper drug administration via MDI. After completion of this project, 534 patients has been educated by our trained staff in 2017 for inhalation technique.